

AION 4-20 A GENERAL DESCRIPTION EN



The AION420 is a compact industrial LPWAN bridge for digitizing existing 4-20 mA sensor signals. It converts analog current-loop measurements into wireless LoRaWAN® or mioty® data, enabling seamless integration of established sensor installations into modern IoT and IIoT infrastructures. Existing sensors, PLCs, and control systems can remain in place, making the AION420 ideal for efficient retrofitting and remote monitoring applications.

FEATURES

- LoRaWAN® or mioty®
- Adapter for connecting 4-20 mA sensors with wireless data transmission
- Seamless integration into existing 4-20 mA sensor installations
- Available as 2-wire and 3-wire version
- 4-20 mA input signal, $V_{in} = 24\text{ V}$
- Measurement accuracy $\pm 0.5\%$
- Loop-through function for parallel use of the analog current signal
- Freely configurable signal mapping to physical values
- Configurable limit values and alarm transmission
- Cyclical or event-based data transmission
- Remote configuration via downlink
- Compact industrial design

EXAMPLE APPLICATIONS

- Smart Factory Automation: Wireless integration of existing analog process signals into industrial IoT applications
- Predictive Maintenance: Monitoring of machine, system, and process conditions based on existing 4-20 mA data
- Remote Monitoring: Transmission of sensor data from hard-to-reach or distributed installations
- Retrofitting: Digitalization of existing plants, brownfield installations, and legacy sensor infrastructure
- Process Industry: Wireless acquisition of analog process values, especially in harsh or remote areas
- Water and Energy Infrastructure: Monitoring of distributed assets, utility networks, and technical facilities

- Smart Building Automation: Integration of existing analog measurement points into modern building management systems
- Smart City: Integration of industrial 4-20 mA sensors into smart infrastructure and municipal IoT projects

VERSIONS

ARTICLE CODE	CLASS	VERSION	CONFIGURATION	INTERFACE
S-AION-LOEU-420	LoRaWAN Class A	Terminiert	BLE	4-20mA (2 channels)
S-AION-MIOTY-420	mioty Class A	Terminiert	BLE	4-20mA (2 channels)
S-AION-LOEU-420-3L	LoRaWAN Class A	Loop-through	BLE	4-20mA (2 Channels)
S-AION-MIOTY-420-3L	mioty Class A	Loop-through	BLE	4-20mA (2 Channels)

